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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,281	04/20/2004	Masanao Furukawa	D-1598	2638

7590                    11/23/2007  
Kanesaka Berner and Partners Patent Agents, LLP  
Suite 310  
1700 Diagonal Road  
Alexandria, VA 22314

EXAMINER
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KRISHNAMURTHY, RAMESH

ART UNIT	PAPER NUMBER
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3753

MAIL DATE	DELIVERY MODE
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11/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.	FURUKAWA, MASANAO	
Examiner /Ramesh Krishnamurthy/	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 13 September 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) 8 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 8 and 9 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All. b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

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This office action is responsive to communications filed September 13, 2007.

**Claims 8 and 9 are pending.**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoji (US 5,952,556) in view of Statler (US 5,146,941).

Shoji discloses (Fig. 2, for example) a gas chromatograph with a fluid control assembly for controlling flow and/or pressure of gas, said fluid control assembly comprising a flow path, a control valve (5), a pressure sensor (21) connected to the flow path in a gas chromatograph for the purpose of ascertaining the pressure thereat of the gas flowing therethrough and a differential pressure sensor (4) for measuring the pressure drop across the flow resistance (3). Control means (9) is disclosed that is connected to the control valve, the differential pressure sensor and the pressure sensor for the purpose of controlling the flow and/or pressure through the flow path.

The patent to Shoji discloses the claimed invention with the exception of explicitly disclosing the control valve to be disposed upstream of both the first pressure sensor and the flow resistance and the control valve.

Statler discloses a flow control arrangement wherein a control valve (18) is disposed upstream of both first pressure detecting means (26) and a resistance (22) for the purpose of providing flow control over a wide range (Col. 4, lines 29 – 34).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to have disposed the control valve In Shoji upstream of the flow resistance and the first pressure sensor for the purpose of providing flow control over a wide range, as recognized by Statler.

Regarding claim 9, it is noted that forming a differential between the differential pressure signal and the pressure measurement from the other pressure sensor is a functional limitation that the control means (9) is capable of.

***Response to Arguments***

3. Applicant's arguments with respect to claims rejected above have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramesh Krishnamurthy whose telephone number is (571) 272 – 4914. The examiner can normally be reached on Monday - Friday from 10:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel, can be reached on (571) 272 – 4929. The fax phone number for the organization where this application or proceeding is assigned is (571) 273 – 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ramesh Krishnamurthy/

Ramesh Krishnamurthy

Primary Examiner

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